

# RCI Features & Characteristics Handbook

## PHYSICAL FEATURES – FEATURE 215 – MEDIANS

FEATURE 215 – MEDIANS					
Roadway Side	Offsets	LRS Package	Feature Type	Interlocking	Secured
C	No	Yes	Length	Yes	Yes
Responsible Party for Data Collection		District Planning			

**Definition/Background:** Denotes type of medians and median barriers on divided highways.

### MDBARTYP – TYPE OF MEDIAN BARRIER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
35		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes	N/A	N/A

**Definition/Background:** Denotes type of median barrier.

**Important When Gathering:** A barrier is defined as any longitudinal and vertical physical structure between roadbeds preventing motorists from crossing to the other side of the travelway.

**How to Gather this Data:** Record appropriate code.

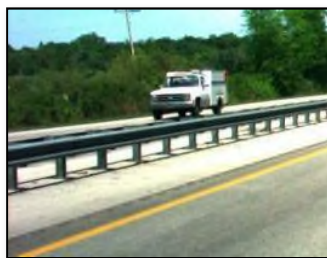
**Special Situations:** When more than one barrier type exists, use Code 20-Other.

Codes	Descriptions	Codes	Descriptions
03	Cable Barrier	06	Barrier Wall
04	Guardrail (all types)	20	Other
05	Fence	28	Canal, river, or other waterway

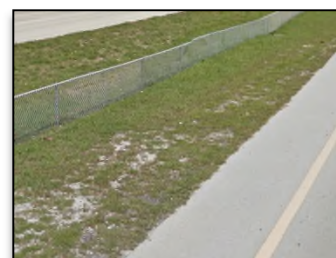
**Examples:**



03 – Cable Barrier



04 – Guardrail



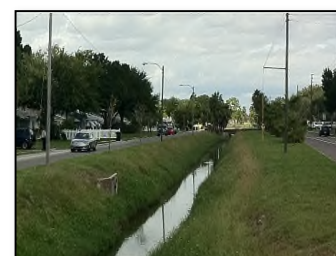
05 – Fence



06 – Barrier Wall



20 – Other



28 – Canal, river, waterway, or other water body.

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### Examples of Coding Combinations:



RDMEDIAN = 02  
MDBARTYP = 04



RDMEDIAN = 02  
MDBARTYP = 06



RDMEDIAN = 08  
MDBARTYP = 04



RDMEDIAN = 17  
ISLDTYPE = 6 (Feat. 219)



RDMEDIAN = 10  
MDBARTYP = 06  
ISLDTYPE = 1 (Feat. 219)

### MEDWIDTH – HIGHWAY MEDIAN WIDTH

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
36		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes	N/A	N/A

**Definition/Background:** Denotes the median width in feet.

**Quality Check: Cross-Reference/Tolerance:** Dimensional Accuracy: 1 foot for medians less than or equal to 50 feet wide; 2 feet for medians greater than 50 feet wide.

**How to Gather this Data:** Start from outside edge of yellow painted line of the median and measure straight across to the outside edge of the yellow painted line on the opposite side.

**Special Situations:** If no painted lines exist, substitute edge of painted line with edge of through pavement. If median is raised or a ditch, do not add the contour as part of the median width measure.

**Value for Median Width: 3 Bytes:** XXX – Record in feet

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### RD MEDIAN – HIGHWAY MEDIAN TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
35		Planning, Maintenance, Work Program, Traffic Operations, HPMS	All functionally classified roadways on the SHS, all HPMS standard samples off the SHS, Active Exclusive roadways, all SIS related roadways, and all managed lanes	N/A	N/A

**Definition/Background:** A median is a barrier or other physical separation between two lanes of traffic traveling in opposite directions, which can either be raised, painted, or paved.

**How to Gather this Data:** Collect and code the median type and the barrier type separately. Use the applicable median type code. The predominate median type method is the minimum requirement for collecting this data; however, it may be exceeded at the District's discretion. Be consistent in data collection with whatever level of detail chosen.

**Special Situations:** Roundabouts are coded as wide medians. See "Inventorying Roadways with Roundabout Intersections" for coding wide medians.

Codes	Descriptions	Codes	Descriptions
01	Paved (not for Two-way Left Turn Lane – TWLTL)	41	Counted Roundabout
02	Raised Traffic Separator	42	Non-counted Roundabout
08	Vegetation	43	Counted Traffic Circle
17	Curb & Vegetation	44	Non-counted Traffic Circle
20	Other	50	Non-counted Managed Lane
35	Two-way Turn (Effective September 2019)		

#### Examples:



01 – Paved



01 – Paved



02 – Raised Traffic Separator



08 – Vegetation



08 – Vegetation



17 – Curb & Vegetation

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20 – Other



20 – Other



35 – Two Way Turn  
Effective 9/2019  
(previously in Feature 213)



41 – Roundabout

All roundabouts have the following features:

- **Yield at Entry:** Traffic entering the circle yields to traffic already in the circle and continues unimpeded in a continuous counterclockwise traffic flow.
- **Traffic Deflection:** Pavement markings and/or raised islands direct traffic into the rotary in a one-way continuous counterclockwise flow.
- **Geometric Curvature:** The radius of the circular road and the angles of entry are designed to slow the speed of vehicles. Although the geometry is usually circular, roundabouts can be varying shapes.
- **No Impediments:** The center island does not introduce impediments to the traffic flow. There are no parking facilities on either side of the circle and pedestrian crossings are not allowed to cross the circle.

**NOTE:** Roundabouts are not generally determined by what constitutes the center island, but the center cannot introduce extra conflict points.



43 – Traffic Circle

If any of these criteria are not met, then the roadway is a traffic circle. All traffic circles have the following features:

- **Variable Type of Entries:** Traffic enters the traffic circle under various traffic controls, e.g. yield at entry, stop signs, and /or traffic signals, and continues in a continuous counterclockwise traffic flow.
- **Traffic Deflection:** Pavement markings and/or raised islands direct traffic into the traffic circle in a one-way continuous counterclockwise flow.
- **Geometric Curvature:** The radius of the circular road and the angles of entry are designed to slow the speed of vehicles. Traffic flow into the circle can also be slowed or stopped by other traffic control devices. Although the geometry is usually circular, traffic circles can vary in shape.
- **Impediments:** The center island may introduce impediments to traffic flow. There may be parking facilities on either side of the circle. Pedestrians may also cross the traffic circle into the center island.

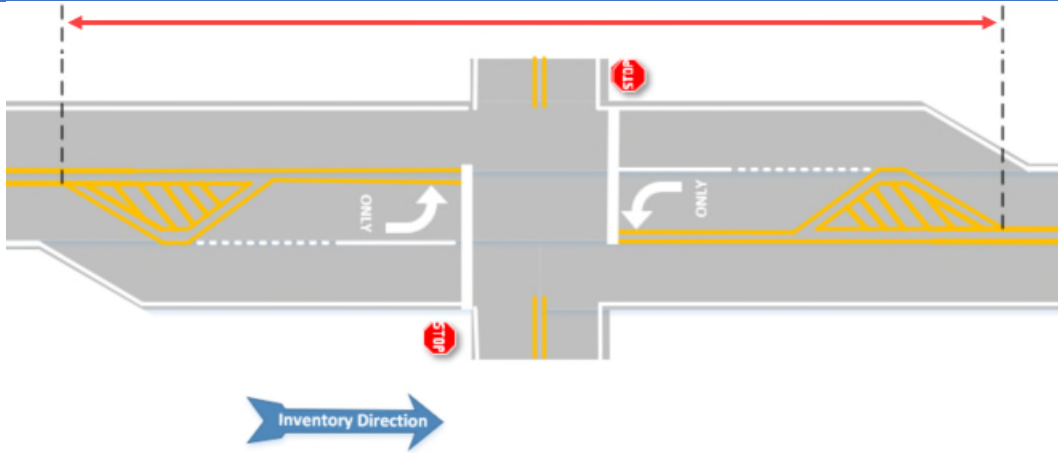


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### Special Situations:

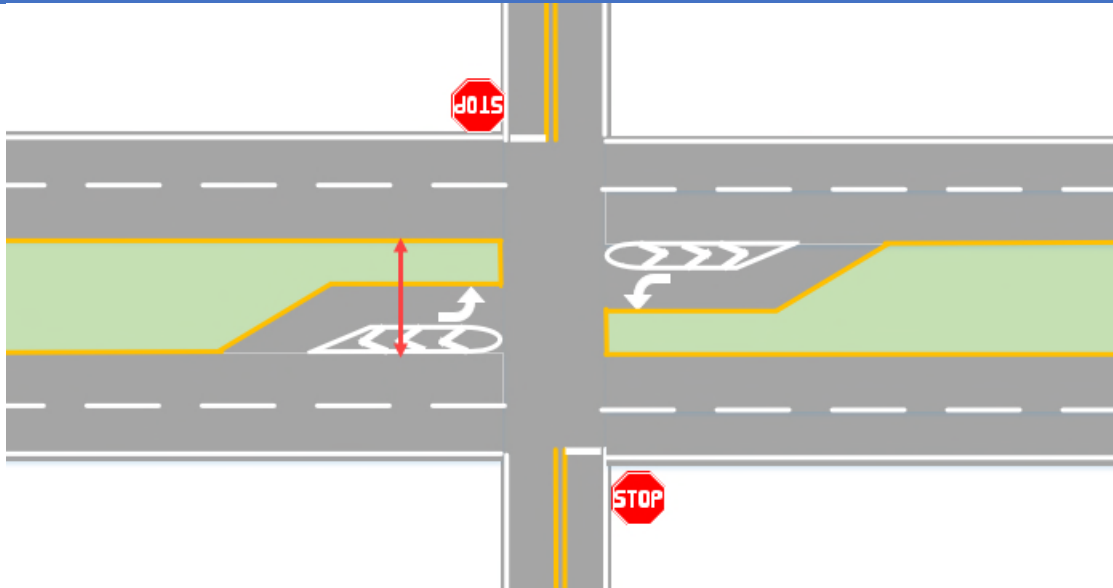
#### Inventorying Roadways with Paved Median (code 01)



The Paved median typically begins where the three reflectors are located (shown above) and continues until the roadway is no longer divided (shown above) or where the median changes and a new median type begins. If median types change at an intersection, then code the current median type to the center of the intersection and begin the new median type at the same location.

For cross reference, see Feature 213 – Left Turn Lanes on how to collect them at intersections.

#### Inventorying Roadways with Vegetation Median (code 08)

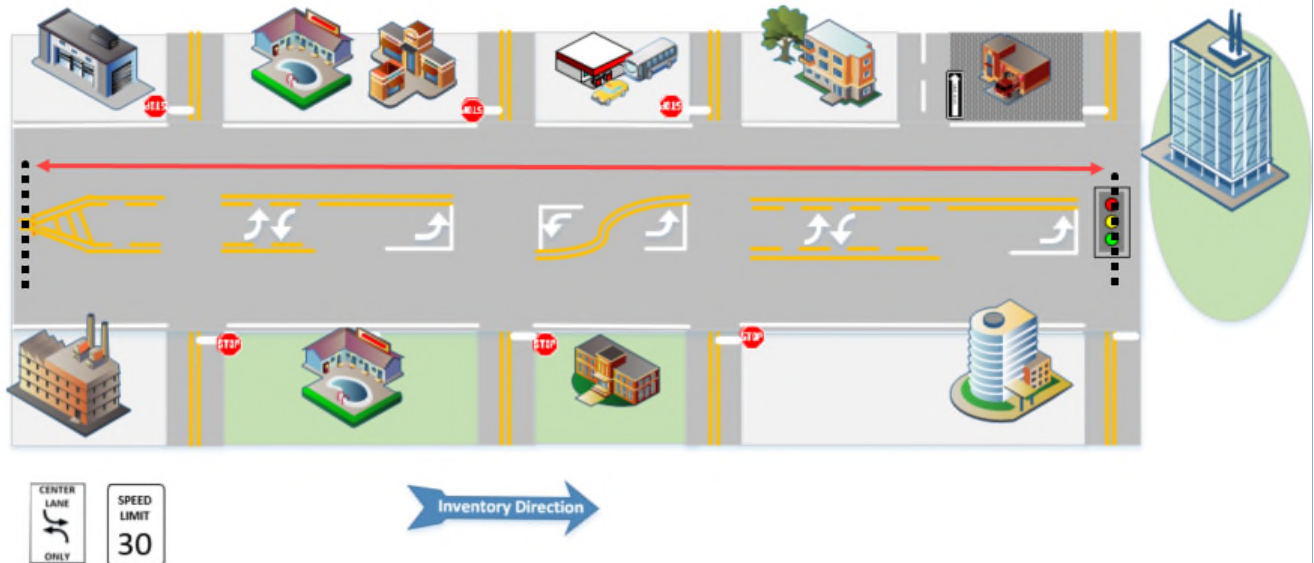


The vegetation median will have turn bays in some areas along the roadway. The turn bays may have positive, neutral, or negative offsets and white painted chevrons separating the turn bay from the traffic of the same direction. This does not change the type of median.

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### Inventorying Roadways with Turn Lane Median (code 35)

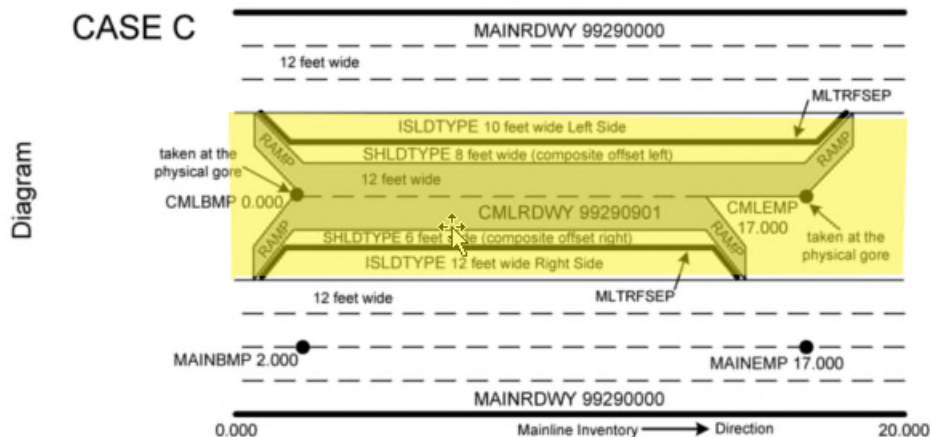


The Turn Lane median typically begins where the three reflectors are located (shown on the left) and continues to the center of the last intersection or at the beginning of a different median type (e.g. paved, curb and vegetation).

If the inventory direction was in the opposite as shown above, the limits would still be the same.

For cross reference, see Feature 213 – Left Turn Lanes on how to collect them at intersections.

### Inventorying Roadways with Non-counted Managed Lane(s) (code 50)



When managed lanes exist in the area between in the inventory and non-inventory directions, the RDMEDIAN for the mainline section is Non-counted Managed Lanes (code 50) and the TYPEROAD must be coded as 2-Divided. The MEDWIDTH is not required. If an Inside Shoulder is present between the mainline and the managed lanes, include it and the associated inside shoulder width with the mainline.

Reference Feature 142 for required characteristics to be collected for associated managed lanes.

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## PHYSICAL FEATURES – FEATURE 215 – MEDIANS

### Inventorying Roadways with Counted Roundabout (code 41)

See examples below.

Where a roundabout exists, use this code for the roadway with the highest functional classification. Only one roadway will have code 41 and the other adjoining roadways will use code 42. When two or more roadways have the same functional classification at the same roundabout, code the roadway with the highest traffic count as 41.

For the roadway being inventoried, consider the roundabout as a wide median. The beginning milepoint of the wide median will be located at the physical gore at the point of entry to the roundabout and continue around the center island to the physical gore at the exit of the roundabout. The width of the median (MEDWIDTH) will be the inside diameter of the roundabout. It can be measured or estimated, whichever is most convenient.

The number of lanes will be collected in the same manner as for all other roadways, i.e., for a composite roadway the number of lanes will be coded as the total number of lanes around the ascending side of the roundabout plus the number of lanes around the descending side of the roundabout; for a divided roadway, the number of lanes on the ascending side of the roundabout will be coded for the right roadway and the number of lanes on the descending side of the roundabout will be coded for the left roadway. Barrier types (MDBARTYP) are not required to be coded for roundabouts. See Inventorying Roadways with Non-counted Roundabout (code 42) below.

### Inventorying Roadways with Non-counted Roundabout (code 42)

See examples below.

Where a roundabout exists, use this code for the roadway with the lowest functional classification.

In the case where two (or more) roadways intersect at a roundabout, only one is counted as a roundabout and on the other roadways use code 42 – Non-counted roundabout.

### Inventorying Roadways with Counted Traffic Circle (code 43)

See examples below.

Where a traffic circle exists, use this code for the roadway with the highest functional classification. Only one roadway will have code 43 and the other adjoining roadways will use code 44. When two or more roadways have the same functional classification at the same traffic circle, code the roadway with the highest traffic count as 43.

For the roadway being inventoried, consider the roundabout as a wide median. The beginning milepoint of the wide median will be located at the physical gore at the point of entry to the roundabout and continue around the center island to the physical gore at the exit of the roundabout. The width of the median (MEDWIDTH) will be the inside diameter of the roundabout. It can be measured or estimated, whichever is most convenient.

The number of lanes will be collected in the same manner as for all other roadways, i.e., for a composite roadway the number of lanes will be coded as the total number of lanes around the ascending side of the roundabout plus the number of lanes around the descending side of the roundabout; for a divided roadway, the number of lanes on the ascending side of the roundabout will be coded for the right roadway and the number of lanes on the descending side of the roundabout will be coded for the left roadway. Barrier types (MDBARTYP) are not required to be coded for roundabouts. See Inventorying Roadways with Non-counted Roundabout (code 42) below.

### Inventorying Roadways with Non-counted Traffic Circle (code 44)

See examples below.

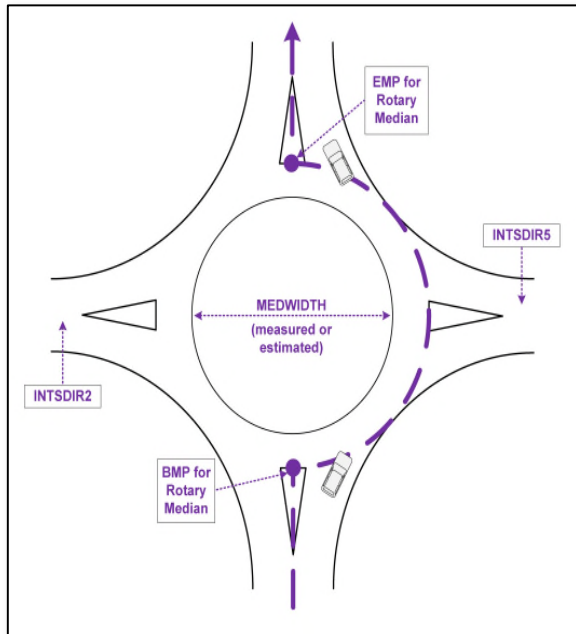
Where a traffic circle exists, use this code for the roadway with the lowest functional classification.

In the case where two (or more) roadways intersect at a roundabout, only one is counted as a roundabout and on the other roadways use code 44 – Non-counted traffic circle.

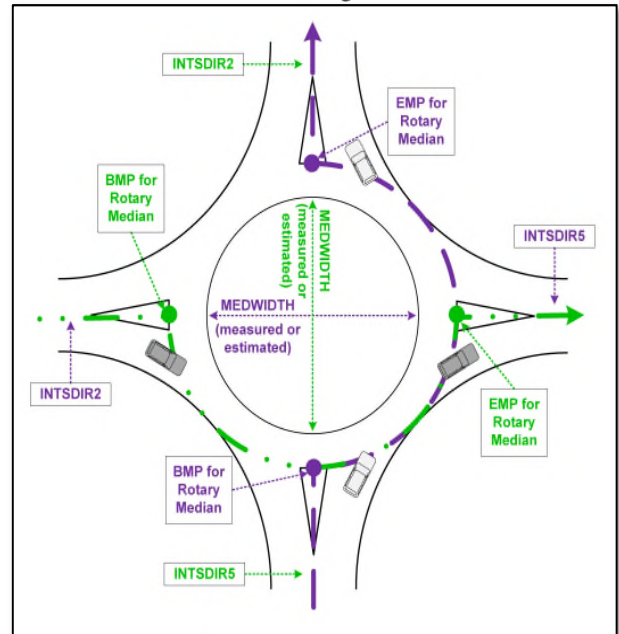
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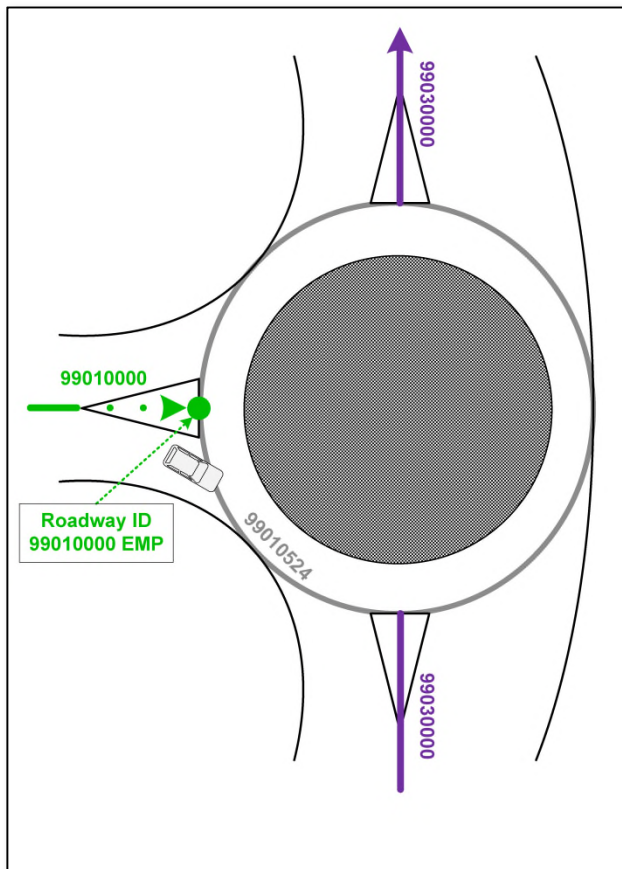
**Roundabout Affecting One Roadway ID**



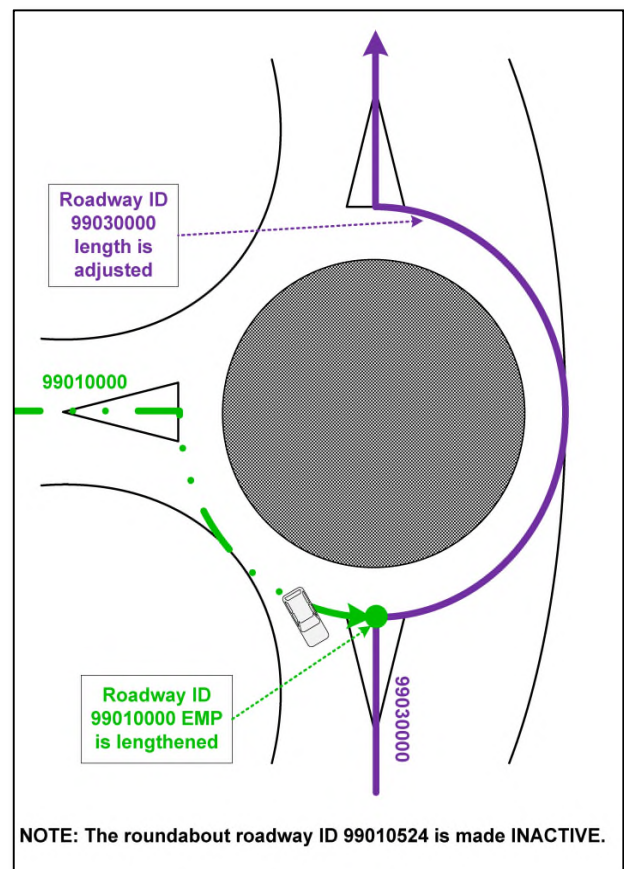
**Roundabout Affecting Multiple Roadway IDs**



**T-intersection Roundabout Before**



**T-intersection Roundabout After**



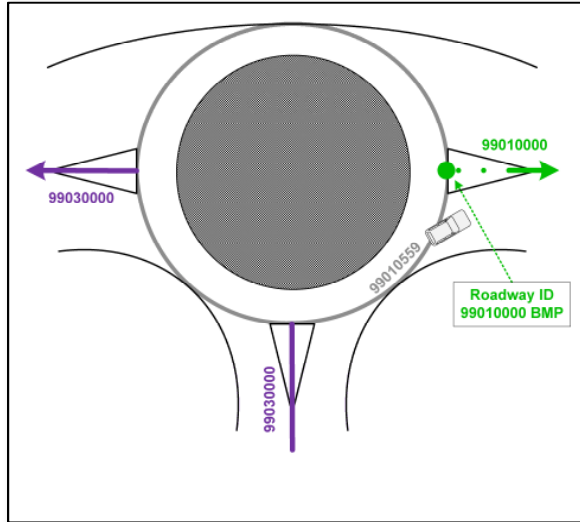
NOTE: The roundabout roadway ID 99010524 is made INACTIVE.



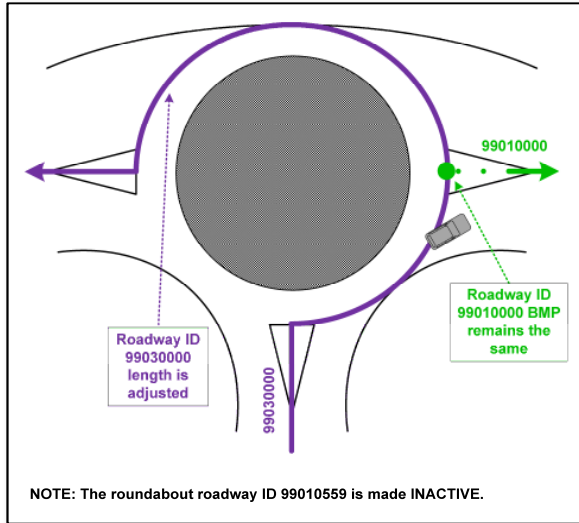
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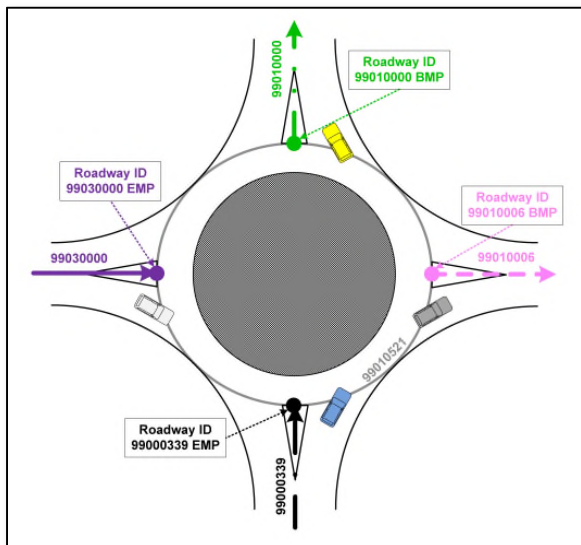
**T-intersection Roundabout Before**



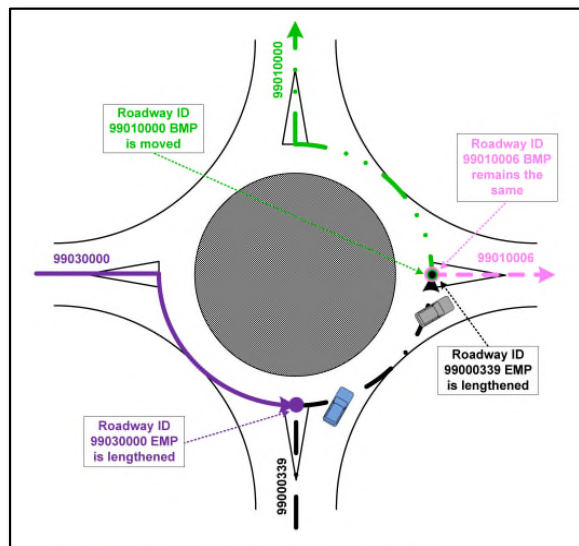
**T-intersection Roundabout After**



**Roundabout with Four Roadway IDs Before**



**Roundabout with Four Roadway IDs After**



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### The median method of coding Roundabouts and Traffic Circles as compared to the previous method

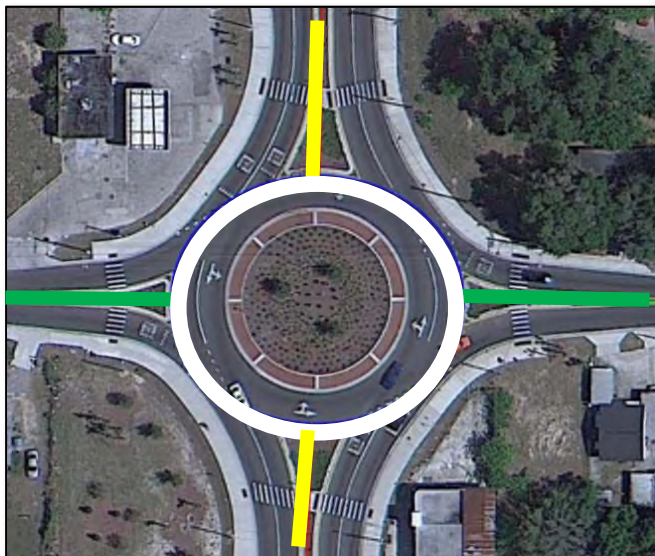
This median method will necessitate re-inventorying all roadways containing roundabouts, because the roadway lengths will change, as will all intersecting characteristics that occur after the roundabouts. When the re-inventory is complete, the measured length of the roadway will be the same as the driven length of the roadway. For these affected roadways, the exceptions coded at the locations of roundabouts will be removed, the overall roadway status will be changed, and the roadways for the individual roundabouts will be made Inactive. This re-inventory will be phased in over the District's routine 5-year re-inventory process. By 2019, all ROTARYs should be converted to this method.

For purposes of drawing SLDs, the diameter of the roundabout can be calculated by assuming that the roundabout is circular. Half of the circumference of the circle can be obtained by subtracting the beginning milepoint of the roundabout from its ending milepoint. The diameter of the roundabout (in feet) can be calculated using the following formula:

$$D = (2 * (EMP - BMP) * 5280) / 3.14$$

It is anticipated that roadways on the SHS containing large traffic circles, like Hollywood Blvd, roadway ID 86040000 in Broward County, will be unaffected by this process, as it was already inventoried in this new rotary method. In any case, the disposition of roadways with large traffic circles will be handled on a case-by-case basis between the District and TDA.

**Previous Rotary Method**



**Median Method**

